

Remarks:

The Examiner has rejected the pending claims under § 103(a) as being obvious over Novotny et al. (US Patent No. 6,307,832) in view of Kanaguchi et al. (JP 8-235556) and Hatam-Tabrizi et al. (US Patent No. 6,324,130).

Novotny is directed to a near field optical device with a head cleaning means, but fails to disclose a cooling means for a lens in a head slider, as admitted by the Examiner. Kanaguchi teaches a magnetic field modulation device but fails to disclose a near field optical device. Hatam-Tabrizi is directed to an enhanced mechanical movement for a magneto-optic device and is non-analogous art.

The Office Action refers to Kanaguchi's FIG. 1, element 9 contending that the grooves 9 are equivalent to the "air induction channel" (i.e., tunnel) of the invention. It is respectfully noted that anticipation of claims using a drawing requires that "the picture must show all the claimed structural features and how they are put together" and "[t]he drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art." M.P.E.P. § 2125.

Referring to FIG. 1, Kanaguchi only illustrates "recessed grooves 9" on a "slider 7", but does not teach a longitudinal or lateral channel formed through the body of the slider and separating two optical lenses, as claimed here. Particularly, since Kanaguchi's device does not include an optical means for near field optical recording (such as a near field lens) there is no motivation for combining Kanaguchi and Novotny's teachings. Therefore, it is respectfully submitted that the cited prior art references cannot be combined to teach the claimed invention.

Further, there is no indication in the Office Action, how such combination is possible, as the systems disclosed in the cited references are independently complex and cannot be easily modified to work with each other. Even if one reference is modified in accordance to the teaching of the other, the resultant modification would be an impractical or inoperable combination.

For example, in order to modify the device of Novotny in accordance with the teachings of the Kanaguchi, the recessed grooves 9 of Kanaguchi will have to be positioned between the optical lenses 301 and 303 of Novotny. According to Kanaguchi, however, the "recessed grooves 9 [are] open to the end face on the disk device mounting side" (see Abstract). That is, Kanaguchi requires the recessed grooves to be open in the direction facing the recording medium so that "the airflow generated at the time of rotation of the disk . . . passes the insides of the recessed grooves 9" (see Abstract).

Thus, positioning the grooves between optical lenses would be incongruent to the teaching of Kanagushi. As such, since Kanagushi teaches away from obstructing the flow of air into the recessed grooves, a person of ordinary skill in the art would not have been motivated to combine the teachings of the above two references.

It is well settled that there must be some motivation or suggestion to combine, in the prior art references themselves, to come up with the claimed invention. That is, prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining the teachings.” In re Sernaker, 217 USPQ 1, 6 (Fed. Cir. 1983). In light of the above discussion, the Examiner is invited to point out such suggestion or motivation to combine in at least one of the references with more specificity, or alternatively provide a sworn affidavit as required under MPEP 2144.03.

Further more, “[i]n rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. ‘A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.’ In re Rijkaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). Novotny neither alone nor in combination with Kanagushi, or Hatam-Tabrizi teaches or describes the claimed invention, as amended.

That is, neither Novotny, nor Kanagushi, or Hatam-Tabrizi teach or disclose a near field optical recording device comprising (1) a longitudinal head slider having first and second ends positioned over an upper surface of a recording medium; (2) an objective lens mounted on the first end and a first surface of the head slider for focusing light generated from the optical pick-up unit; (3) a collective lens mounted on the first end and a second surface of the head slider approximately opposite the objective lens for transmitting the focused light to the recording medium, wherein the head slider has at least one air induction channel extending longitudinally from the first end to the second end through the head slider and separating the objective lens and the collective lens.

Even further, Hatam-Tabrizi is an improperly cited reference as it does not disclose any “cooling means” for a lens and only suggests a groove (not a channel) for assisting damping of the motion of slider body. That is, the suggested groove in Hatam-Tabrizi functions to stabilize the slider by reducing a “flying roll” that occurs due to the difference in velocity of the air passing over and under the mechanism

(see col. 8, ln. 62 - col. 9, ln. 5). Such groove does not act as a cooling channel in contrast to what is recited in the amended claims.

For the above reasons, the invention as recited in the amended claim 7 is distinguishable over the references cited by the Examiner. New claim 22 substantially incorporates the discussed limitations of claim 1 and therefore claims 7 and 22 should be in condition for allowance. Claims 8-21 and 23-30, respectively depending on claims 7 and 22 should also be in condition for allowance.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have expressly argued herein that such amendment was made to distinguish over a particular reference or combination of references.


If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,  
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